



30-045-06809

NMOGD

JUN 18 2018

DISTRICT III

2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: SR180223
Cust No: 72550-10965

Well/Lease Information

Customer Name: SOUTHLAND ROYALTY	Source: TUBING
Well Name: CANDELARIO ETAL #1; TBG	Well Flowing:
County/State: SAN JUAN NM	Pressure: 110 PSIG
Location:	Flow Temp: DEG. F
Field:	Ambient Temp: DEG. F
Formation: BASIN DAKOTA	Flow Rate: MCF/D
Cust. Str. No.:	Sample Method:
	Sample Date: 06/07/2018
	Sample Time: 7.30 AM
	Sampled By: DEAN EMERY
Heat Trace:	Sampled by (CO): SOUTHLAND
Remarks:	

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3016	0.2970	0.0330	0.00	0.0029
CO2	1.3401	1.3195	0.2290	0.00	0.0204
Methane	86.0983	84.7770	14.6380	869.59	0.4769
Ethane	7.2409	7.1298	1.9420	128.14	0.0752
Propane	2.3007	2.2654	0.6360	57.89	0.0350
Iso-Butane	0.5643	0.5556	0.1850	18.35	0.0113
N-Butane	0.6006	0.5914	0.1900	19.59	0.0121
I-Pentane	0.3263	0.3213	0.1200	13.05	0.0081
N-Pentane	0.2061	0.2029	0.0750	8.26	0.0051
Hexane Plus	1.0211	1.0054	0.4570	53.82	0.0338
Total	100.0000	98.4653	18.5050	1168.71	0.6808

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0031	CYLINDER #:	6209
BTU/CU.FT IDEAL:	1171.4	CYLINDER PRESSURE:	81 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1175.1	ANALYSIS DATE:	06/07/2018
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1154.7	ANALYSIS TIME:	11:16:26 AM
DRY BTU @ 15.025:	1198.6	ANALYSIS RUN BY:	PATRICIA KING
REAL SPECIFIC GRAVITY:	0.6827		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 06/07/2018

GC Method: C6+ Gas



SOUTHLAND ROYALTY
WELL ANALYSIS COMPARISON

Lease: CANDELARIO ETAL #1; TBG
Stn. No.:
Mtr. No.:

TUBING
BASIN DAKOTA

06/07/2018
72550-10965

Smpl Date: 06/07/2018
Test Date: 06/07/2018
Run No: SR180223
Nitrogen: 0.3016
CO2: 1.3401
Methane: 86.0983
Ethane: 7.2409
Propane: 2.3007
I-Butane: 0.5643
N-Butane: 0.6006
I-Pentane: 0.3263
N-Pentane: 0.2061
Hexane+: 1.0211
BTU: 1175.1
GPM: 18.5050
SPG: 0.6827



NMOCB

JUN 18 2018

DISTRICT III

2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: SR180222
Cust No: 72550-10960

Well/Lease Information

Customer Name: SOUTHLAND ROYALTY	Source: CASING
Well Name: CANDELARIO ETAL #1; CSG	Well Flowing:
County/State: SAN JUAN NM	Pressure: PSIG
Location:	Flow Temp: DEG. F
Field:	Ambient Temp: DEG. F
Formation: BASIN DAKOTA	Flow Rate: MCF/D
Cust. Str. No.:	Sample Method:
	Sample Date: 06/07/2018
	Sample Time: 11.35 AM
	Sampled By: DEAN EMERY
Heat Trace:	Sampled by (CO): SOUTHLAND
Remarks:	

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2480	0.2447	0.0270	0.00	0.0024
CO2	1.2848	1.2678	0.2200	0.00	0.0195
Methane	86.2882	85.1440	14.6700	871.51	0.4780
Ethane	7.1744	7.0793	1.9240	126.97	0.0745
Propane	2.2078	2.1785	0.6100	55.55	0.0336
Iso-Butane	0.5911	0.5833	0.1940	19.22	0.0119
N-Butane	0.6053	0.5973	0.1910	19.75	0.0121
I-Pentane	0.3896	0.3844	0.1430	15.59	0.0097
N-Pentane	0.2422	0.2390	0.0880	9.71	0.0060
Hexane Plus	0.9686	0.9558	0.4330	51.06	0.0321
Total	100.0000	98.6741	18.5000	1169.35	0.6798

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0031	CYLINDER #:	4211
BTU/CU.FT IDEAL:	1172.1	CYLINDER PRESSURE:	102 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1175.7	ANALYSIS DATE:	06/07/2018
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1155.2	ANALYSIS TIME:	11:30:11 AM
DRY BTU @ 15.025:	1199.2	ANALYSIS RUN BY:	PATRICIA KING
REAL SPECIFIC GRAVITY:	0.6816		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

Last Cal/Verify: 06/07/2018

GC Method: C6+ Gas



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SOUTHLAND ROYALTY
WELL ANALYSIS COMPARISON

Lease: CANDELARIO ETAL #1; CSG
Stn. No.:
Mtr. No.:

CASING
BASIN DAKOTA

06/07/2018
72550-10960

Smpl Date: 06/07/2018
Test Date: 06/07/2018
Run No: SR180222
Nitrogen: 0.2480
CO2: 1.2848
Methane: 86.2882
Ethane: 7.1744
Propane: 2.2078
I-Butane: 0.5911
N-Butane: 0.6053
I-Pentane: 0.3896
N-Pentane: 0.2422
Hexane+: 0.9686
BTU: 1175.7
GPM: 18.5000
SPG: 0.6816